

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

--6. (currently amended) A method for power optimization for a rail vehicle traveling over a route according to a schedule which includes a time reserve, the rail vehicle comprising a plurality of completely or partially autonomous drive systems, the method comprising:

identifying at least two completely or partially autonomous drive systems in the rail vehicle;

determining efficiency of each identified autonomous drive system; and

determining a power-saving travel mode for the rail vehicle using an optimization algorithm in which the efficiency of the identified autonomous drive systems is taken into consideration.

7. (previously presented) The method as claimed in claim 6, wherein the autonomous drive systems comprise one or more drive systems from the group consisting of bogies with a separate drive and driven axles.

8. (previously presented) The method as claimed in claim 6, wherein efficiency for each identified autonomous drive system is determined as a function of tractive force and vehicle speed.

9. (currently amended) The method as claimed in claim 8, wherein the step of determining a power saving mode comprises combining the functions of efficiency of each identified autonomous drive system to form an overall function of efficiency for the rail vehicle for use in the optimization algorithm.

10. (currently amended) The method as claimed in claim 8, wherein the step of determining a power saving mode comprises:

combining the functions of efficiency of each identified autonomous drive system to form a representative function of efficiency for the rail vehicle;

determining the number of autonomous drive systems in the rail vehicle; and

determining efficiency on the basis of the representative function of efficiency and the number of autonomous drive systems in the optimization algorithm.

11. (previously presented) The method as claimed in claim 8, further comprises determining an on/off state for each autonomous drive system and wherein the efficiency of the identified autonomous drive systems and their respective on/off states is taken into consideration in the optimization algorithm to determine a power saving mode.

12. (previously presented) The method as claimed in claim 6, wherein autonomous drive systems are identified by taking boundary conditions into account, the boundary conditions consisting of one or more conditions taken from the group comprising expected tractive force, expected braking force, adhesion coefficients, temperature, and influences in the drive dynamics.

13. (previously presented) The method as claimed in claim 6, further comprising determining an optimum combination of the autonomous drive systems for use while travelling over the route.

14. (currently amended) A method for power optimization for a rail vehicle traveling over a route according to a schedule which includes a time reserve, the rail vehicle comprising a plurality of completely or partially autonomous drive systems, the method comprising:

identifying at least two completely or partially autonomous drive systems in the rail vehicle;

determining power loss of each identified autonomous drive system; and

determining a power-saving travel mode for the rail vehicle using an optimization algorithm in which the power loss of the identified autonomous drive systems is taken into consideration.

15. (previously presented) The method as claimed in claim 14, wherein the autonomous drive systems comprise one or more drive systems from the group consisting of bogies with a separate drive and driven axles.

16. (previously presented) The method as claimed in claim 14, wherein power loss for each identified autonomous drive system is determined as a function of tractive force and vehicle speed.

17. (currently amended) The method as claimed in claim 16, wherein the step of determining a power saving mode comprises combining the functions of power loss of each identified autonomous drive system to form an overall function of power loss for the rail vehicle for use in the optimization algorithm.

18. (currently amended) The method as claimed in claim 16, wherein the step of determining a power saving mode comprises:

combining the functions of power loss of each identified autonomous drive system to form a representative function of power loss for the rail vehicle;

determining the number of autonomous drive systems in the rail vehicle; and

determining power loss on the basis of the representative function of power loss and the number of autonomous drive systems in the optimization algorithm.

19. (previously presented) The method as claimed in claim 16, further comprises determining an on/off state for each autonomous drive system and wherein the power loss of the identified autonomous drive systems and their respective on/off states is taken into consideration in the optimization algorithm to determine a power saving mode.

20. (previously presented) The method as claimed in claim 14, wherein autonomous drive systems are identified by taking boundary conditions into account, the boundary conditions consisting of one or more conditions taken from the group comprising expected tractive force, expected braking force, adhesion coefficients, temperature, and influences in the drive dynamics.

21. (previously presented) The method as claimed in claim 14, further comprising determining an optimum combination of the autonomous drive systems for use while travelling over the route.

22. (new) The method as claimed in claim 6, wherein the plurality of completely or partially autonomous drive systems are electric drive systems.

23. (new) The method as claimed in claim 14, wherein the plurality of completely or partially autonomous drive systems are electric drive systems.